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**United States Patent** [19]

Suzuki et al.

[11] Patent Number: **5,157,549**[45] Date of Patent: **Oct. 20, 1992**[54] **AUTOMOTIVE HEADUP DISPLAY APPARATUS**[75] Inventors: **Masao Suzuki; Tatsumi Ohtsuka; Kazuhiro Itami**, all of Shizuoka, Japan[73] Assignee: **Yazaki Corporation**, Tokyo, Japan[21] Appl. No.: **665,839**[22] Filed: **Mar. 7, 1991**[30] **Foreign Application Priority Data**

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*Primary Examiner*—Bruce Y. Arnold*Assistant Examiner*—David R. Parsons*Attorney, Agent, or Firm*—Nikaido, Marmelstein, Murray & Oram

[57]

**ABSTRACT**

The automotive headup display apparatus contains an indicator and a reflection member and has an opening directed toward a reflection surface as on a windshield. A Fresnel lens is installed in the opening for enlarging a display image of the indicator. The reflection member is disposed facing and between the indicator and the reflection surface. The reflection member is coated with a hologram emulsion layer to have a wavelength selection capability such that only the rays of light with almost the same wavelength as display light of the indicator are reflected by the reflection member. With this arrangement, when external light should enter the indicator unit from the reflection surface on the windshield, those rays of light different in wavelength from the display light are not reflected toward the indicator, preventing the display of the indicator from being obscured as in the conventional apparatus.

**3 Claims, 5 Drawing Sheets**